

ABSTRACT OF THE DISCLOSURE

The present invention relates to an implementation for cooling and positioning prismatic battery cells. In one embodiment of the present invention, a cooling fin made of thermally conductive material is placed between prismatic battery cells. The cooling fin also acts as a structural component for the battery. The area of the cooling fin in contact with the cell is used to transfer the cell's heat to a second area of the cooling fin that is not in contact with the cell. The second area is in direct contact with a fluid stream (air, water, oil, etc.) that conducts the heat away. In one embodiment, the cooling fin is constrained with other fins where an alternating (cell, cooling fin, cell) geometry is obtained. Then components are combined into a compressed unit. The present invention results in a lighter and efficient structure than existing methods that solely rely on water or air circulation.